I have been a Manatee County Citizen for over 40 years I know firsthand what Mosaic is

Legacy

What will be this Commissions Legacy?

What will you leave for you children and grandchildren for generations to come

Will you leave a healthy environment or one with a high cancer rate?

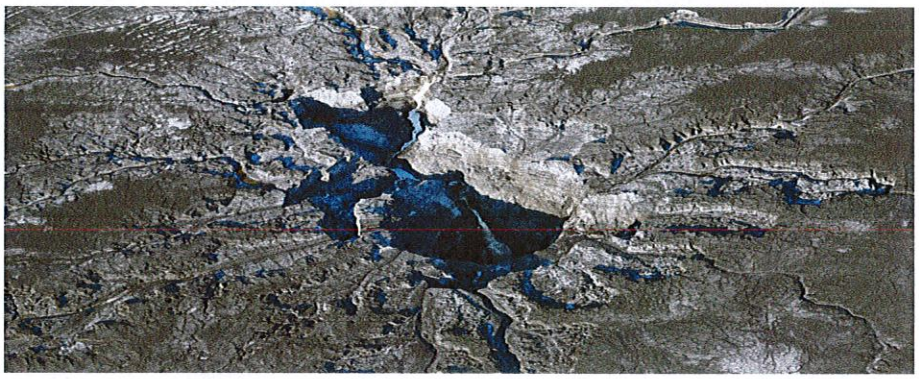
Go to Polk County and other Counties that have had Mosaic mining

Go Speak to some of the folks that have been affected by Mosaic

You owe that to the Citizens of DeSoto County

You owe it to your children and grandchildren

I encourage a moratorium on mining until you have all the facts from experts, 3rd party evaluations and others



NEWS ROUNDUP

2015

-50 FEET

Phosphate giant Mosaic pumps from Florida's aquifer to dilute its pollution

A Mosaic mine operates in 2010 in Hillsborough County, where a permit allows Mosaic to withdraw water from wells for mining and production facilities. Mosaic also uses freshwater to dilute pollution from plants, a process the industry calls "blending." Times files (2010)

Craig Pittman

MORE ARTICLES

Published: July 21, 2013
Updated: July 21, 2013 at 02:39 AM

Last year, a state water agency granted the world's largest phosphate mining company a permit to pump up to 70 million gallons of water a day out of the ground for the next 20 years.

Some of those millions of gallons of water — no one can say how much — is being used by the phosphate giant known as Mosaic to dilute polluted waste so it can be dumped into creeks without violating state regulations.

The permit allows Mosaic to withdraw water from more than 250 wells in Hillsborough, Manatee, Polk, Hardee and De Soto counties, an area that since 1992 has been under tight restrictions for any new residential and commercial water use.

"The water use is crazy," said John Thomas, a St. Petersburg attorney who challenged the Mosaic permit on behalf of a client who ended up settling. "They're pulling an awful lot of water out to discharge with their waste."

Odd though it may sound, that's a standard practice for the phosphate industry, according to Santino Provenzano, Mosaic's environmental superintendent.

It's allowed under the state Department of Environmental Protection's rules, said Brian Starford of the Southwest Florida Water Management District, the agency commonly known as Swiftmud. Without that freshwater to dilute it, what Mosaic is discharging would violate the DEP's limits on a type of pollution called "conductivity," he explained. That term refers to the solids that are left in the waste after it's processed.

"If they were exceeding the standards, the DEP would not allow the discharge," explained Starford, whose agency issued the Mosaic permit.

DEP press secretary Patrick Gillespie said using freshwater to dilute a phosphate plant's discharge "is permissible and used only in closure activities or in storm-related activities in order to meet department water quality standards."

Mosaic spokesman David Townsend said the company is only using freshwater for dilution with waste from inactive processing plants, which he said complies with DEP rules. He could not provide a list of where those were located or how many there were.

The diluted waste is discharged "usually into a creek or smaller water body that feeds into a larger one at some point," he said.

The issue of how much water Mosaic pumps out of the ground was explored by a recent environmental impact study on phosphate mining that was commissioned by the U.S. Army Corps of Engineers. The report found that the miners' water use in some areas could lower the aquifer by up to 10 feet, but contended the aquifer would eventually recover when the pumping stopped.

The same agency that issued Mosaic's water permit, Swiftmud, declared a 5,100-square-mile area covering all or part of eight counties south of Interstate 4 to be the Southern Water Use Caution Area in 1992. The reason: so much water had been pumped out of the aquifer in that region that the water table had fallen 50 feet.

Mosaic previously had a permit that allowed it to take up to 99 million gallons a day from underground, so the permit issued last year is a reduction. As of last month, the mining giant was pulling only 30 of its allotted 70 million gallons a day out of the ground, Provenzano said.

Half of that was being used in the mining process and the other half was being used at production facilities, he said. He said he could not specify how much was being used to dilute the pollution from some plants, a process the industry prefers to call "blending."

In approving the Mosaic permit, Swiftmud officials had to rule that the company had offered "reasonable assurances" that its use of the water isn't wasteful and won't adversely affect downstream users and the environment.

But Thomas questioned whether Swiftmud or Mosaic have ever considered coming up with a different way to deal with the pollution. By repeatedly pumping millions of gallons of water from underground just for blending, he said, the company will leave behind "a swiss cheese aquifer with pools of groundwater contamination and cascades of diluted gyp stack waste for decades."

Craig Pittman can be reached at craig@tampabay.com.

« Return to search form

Violation Tracker Parent Company Summary

Parent Company Name: Mosaic

Ownership Structure: publicly traded (ticker symbol MOS)

Headquartered in: Minnesota

Major Industry: chemicals

Specific Industry: chemicals

Penalty total since 2000: $851,425,876

Number of records: 46

Top 10 Primary Offense Types	Penalty Total	Number of Records
environmental violation	**$851,067,413**	**13**
workplace safety or health violation	**$261,417**	**21**
railroad safety violation	**$69,500**	**9**
wage and hour violation	**$13,986**	**2**
labor relations violation	**$13,560**	**1**

Notes:

Parent-subsidiary linkages are based on relationships current as of the latest revision listed in the Update Log, which may vary from what was the case when a violation occurred. The penalty dollar total above may be adjusted to account for the fact that the list of entries below may include both agency records and settlement announcements for the same case; or else a penalty covering multiple locations may be listed in the individual records for each of the facilities. Duplicate penalty amounts are marked with an asterisk in the list below.

Associated Names:

IMC; IMC FERTILIZER NEW WALES; IMC PHOSPHATES; Mosaic; MOSAIC CROP NUTRITION; MOSAIC FERTILIZER; MOSAIC PHOSPHATES; MOSAIC POTASH

Links:

Subsidy Tracker data on financial assistance to this company by federal, state and local government agencies can be found here.

Individual Penalty Records:

Download results as CSV or XML

Company	Primary Offense Type	Year	Agency	Penalty Amount
Mosaic Fertilizer, LLC	environmental violation	2015	EPA	$810,200,000
Mosaic Fertilizer	environmental violation	2009	EPA	$32,400,000
IMC PHOSPHATE CO. (NEW WALES FACILITY)	environmental violation	2016	EPA	$4,100,000
Mosaic Phosphates, Inc.	environmental violation	2016	EPA	$3,900,000
Mosaic Fertilizer	environmental violation	2009	EPA	(*) $2,400,000
MOSAIC FERTILIZER, LLC	environmental violation	2013	EPA	$245,000
MOSAIC CROP NUTRITION, LLC	environmental violation	2017	EPA	$92,400

Company	Primary Offense Type	Year	Agency	Penalty Amount
Mosaic Fertilizer LLC	environmental violation	2016	EPA	$70,000
Mosaic Fertilizer, LLC	workplace safety or health violation	2012	MSHA	$31,500
Mosaic Fertilizer, LLC	workplace safety or health violation	2009	MSHA	$30,000
IMC PHOSPHATE COMPANY	workplace safety or health violation	2002	OSHA	$23,400
MOSAIC FERTILIZER, LLC	environmental violation	2012	EPA	$21,000
Mosaic Potash Carlsbad Inc	workplace safety or health violation	2010	MSHA	$20,900
Mosaic Fertilizer, LLC	workplace safety or health violation	2010	MSHA	$17,301
Mosaic Phosphates Company	workplace safety or health violation	2005	MSHA	$16,830
Mosaic Fertilizer, LLC	workplace safety or health violation	2010	MSHA	$14,743
Mosaic Potash Carlsbad Inc	workplace safety or health violation	2003	MSHA	$13,900
MOSAIC FERTILIZER, LLC	environmental violation	2016	EPA	$13,563
IMC-Phosphates Company	labor relations violation	2004	NLRB	$13,560
The Mosaic Company	railroad safety violation	2006	FRA	$12,500
MOSAIC FERTILIZER, LLC	environmental violation	2014	EPA	$10,450
Mosaic Fertilizer LLC	railroad safety violation	2010	FRA	$10,000
MOSAIC FERTILIZER, LLC	workplace safety or health violation	2013	OSHA	$10,000
MOSAIC FERTILIZER, LLC	environmental violation	2009	EPA	$10,000
Mosaic Potash Carlsbad Inc	workplace safety or health violation	2012	MSHA	$9,634
Mosaic Fertilizer LLC	railroad safety violation	2015	FRA	$9,500
The Mosaic Company	railroad safety violation	2007	FRA	$9,000
Mosaic Potash Carlsbad Inc	workplace safety or health violation	2015	MSHA	$8,893
Mosaic Fertilizer, LLC	workplace safety or health violation	2005	MSHA	$8,100
Mosaic Potash Carlsbad Inc	workplace safety or health violation	2010	MSHA	$7,578
Mosaic Fertilizer LLC	railroad safety violation	2016	FRA	$7,500
Mosaic	wage and hour violation	2016	WHD	$7,387
Mosaic	wage and hour violation	2009	WHD	$6,599
Mosaic Potash Carlsbad Inc	workplace safety or health violation	2010	MSHA	$6,458
Mosaic Fertilizer, LLC	workplace safety or health violation	2010	MSHA	$6,458
Mosaic Potash Carlsbad Inc	workplace safety or health violation	2010	MSHA	$6,458
MOSAIC FERTILIZER, LLC	workplace safety or health violation	2006	OSHA	$6,300
Mosaic Fertilizer LLC	railroad safety violation	2016	FRA	$6,000
Mosaic Fertilizer, LLC	workplace safety or health violation	2010	MSHA	$5,961
Mosaic Potash Carlsbad Inc	workplace safety or health violation	2013	MSHA	$5,900
IMC FERTILIZER, INC. (NEW WALES)	workplace safety or health violation	2000	OSHA	$5,600
Mosaic Phosphates Company	workplace safety or health violation	2010	MSHA	$5,503
Mosaic Fertilizer LLC	railroad safety violation	2010	FRA	$5,000
Mosaic Fertilizer LLC	railroad safety violation	2016	FRA	$5,000
The Mosaic Company	railroad safety violation	2006	FRA	$5,000
MOSAIC FERTILIZER LLC - KINGSFORD/HAYNESWORTH/BIG FOUR	environmental violation	2010	EPA	$5,000

Download results as CSV or XML

SHARE

(a) The provisions of this article shall supersede any provisions of existing ordinances in conflict herewith.

(b) Sarasota County Ordinance No. 72-83 is hereby repealed.

(Ord. No. 82-111, § 19, 3-1-1983)

Sec. 54-300. - Severability.

In the event any portion of this article is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holdings shall not affect the validity of the remaining portions of this article.

(Ord. No. 82-111, § 20, 3-1-1983)

Sec. 54-301. - Exhibit A, revegetation standards.

REVEGETATION STANDARDS

	Improved Pasture	Woodlands	Wooded Wetlands	Marsh
Diversity	Not applicable	Minimum of six native tree species. Not more than 70 percent of planting may be pines. Representative mixture of native grasses, legumes and forbs shall be established.	Minimum of eight native tree species. Not more than 60 percent of planting may be one species. Species selection shall be based on native habitat indigenous to the area of the mine property.	Not applicable with mulch or other approved techniques.
Density and Cover	80 percent ground cover of perennial vegetation following one growing season.* Bare areas shall not exceed one-quarter acre.	40 trees per acre with adequate native ground cover to prevent erosion after one growing season.* 30 trees per acre with a minimum height of three feet after five years. 50 percent ground cover of herbaceous woodland	200 trees per acre after one growing season.* 100 trees per acre with a minimum height of three feet after five years.	50 percent ground cover of herbaceous wetland species after one growing season.*

resulted in tremendous environmental damage to surface waters through the release of phosphate slimes and other noxious pollutants.

(3) The conservation and protection of the natural resources and scenic beauty of Sarasota County is vitally important to the health, welfare and safety of the citizens and is further essential in the maintenance of the highly desirable tourist and retirement economic sectors that have arisen due to the County's unique climatic and cultural advantages.

(4) The air and water resources of the various counties of Southwest Florida are interdependent and indivisible and the adverse effects of phosphate mining will create a common and substantial burden upon all the counties within the region and will therefore affect the public health, welfare and safety of the citizens of Sarasota County.

(5) The mining of groundwater is already a serious problem in Southwest Florida and the potentiometric surface has declined below sea level in large portions of the region, thereby increasing the danger of saltwater intrusion.

(6) Phosphate mining in other areas of Florida has been shown to lower drastically groundwater levels and the potentiometric surface.

(7) The possible release of radioactive elements which have toxic effects even in minute amounts into the air and water of Southwest Florida through phosphate mining may have serious public health consequences now and for generations to come.

(8) No federal, State or regional agency has undertaken an independent, interdisciplinary study of the potential environmental, economic and public health impacts of phosphate mining on Southwest Florida.

(9) The vast majority of currently available information regarding phosphate mining has been prepared by phosphate corporations or consultants dependent upon the phosphate industry.

(10) Without an independent, interdisciplinary study of the potential environmental, economic and public health impacts of phosphate mining, it is impossible for any level of government to make enlightened decisions that will properly protect the public interest.

(b) *Authorization for the expenditure of public funds.*

(1) Sarasota County is hereby authorized to expend its funds for the conservation and protection of its natural resources and scenic beauty and for the abatement of air and water pollution resulting from or which may result from existing, pending and proposed phosphate mining including but not limited to expenditures for the following:

a. Participation in interdisciplinary studies and projects relating to the environmental impact of phosphate mining.

b. Obtaining and preparation of scientific and economic reports including the employment of all necessary experts and technicians for the purpose of preparing, presenting and testifying in regard to such reports.

c. The employment of scientists, technicians and attorneys.

d. Preparation for and presentations to local, regional, State and federal agencies and governing bodies and the bringing of any and all court litigation including the processing of appeals.

(2) All previous expenditures by Sarasota County relating to the protection of the environment in connection with existing, pending and proposed phosphate mining as set forth in subsection (b)(1) of this section are hereby ratified.

(c) *Declaration of Charter County purpose.* It is hereby determined and declared that the expenditure of funds for the purposes set forth in this article constitutes a public and Charter County purpose.

(Ord. No. 75-047, §§ 1—3, 1-6-1976)

Table 5-2: Water quality data comparing background, NPDES outfall and downstream water quality for select mine discharges (AEIS, 2012).

Location	Site	pH	Specific Conductance (umho/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total P (mg/L)	Total N (mg/L)	Chl-a (ug/L)
Four Corners Mine - 1 2005-2010	Background	6.78	268	2.97	5.03	0.91	1.46	1.89
	Outfall	7.26	584	16.15	6.29	1.22	0.87	6.7
	Downstream	7.18	556	5.86	6.62	0.68	1.12	4.89
Four Corners Mine - 2 2005-2010	Background	6.68	217	1.86	3.31	0.87	1.7	11.83
	Outfall	7.48	870	5.29	7.5	1.23	1.03	18.46
	Downstream	6.85	643	3.36	5.79	0.96	1.03	8.8
Wingate Mine - 1 2005-2010	Background	6.7	258	4.2	6.9	0.47	2.15	2.75
	Outfall	6.9	481	4.7	7.3	0.88	0.9	3.7
	Downstream	6.7	375	1.9	7.2	0.29	1.02	3.7
Wingate Creek Mine - 2 2005-2010	Background	6.9	323	5.7	5.7	0.31	1.09	2.69
	Outfall	7.3	671	6.2	8.2	1.41	1.07	14.53
	Downstream	7.2	612	6	7.5	1.23	1.33	11.37
Fort Green Mine - 5 2006-2011	Background	7.4	442	5.9	6.47	0.95	1.57	NA
	Outfall	7.2	508	5.5	NA	1.03	1.6	12.58
	Downstream	7.6	445	4.6	7.1	0.82	1.45	NA
Kingsford Mine - 5 2008-2010	Background	7.2	236	13.7	6.05	0.36	2.13	37.2
	Outfall	7.8	465	7.6	7.77	0.72	1.43	38.4
	Downstream	7.5	361	7.6	5.27	0.53	1.88	28.6

Publicly available data from government monitored sample locations were searched, but the data associated with the monitoring sites was typically insufficient to make a comparable assessment for water quality parameters of interest. As stated above, water quality data reported by the mines to the FDEP is reported in dozens or hundreds of documents, many of which are in excess of 100 pages long. In addition, it should be noted that the data presented above for actual mining situations is not from the Big Slough watershed as there are currently no active mines in the watershed, and therefore, due to differences in land use, soils, geology, hydrological connectivity and other natural features, data collected from other watersheds may or may not be

representative of conditions found in the Big Slough watershed. Data from the AEIS appears to be the best publicly available data related to water quality impacts from mining operations.

6.0 PREVIOUS SPILL/POLLUTION INCIDENTS RELATED TO PHOSPHATE MINING

The summary below includes incidents in Florida related to both gyp stacks and CSAs. Incidents related to CSAs are in bold as they are the most relevant incidents for the City of North Port. Information regarding gyp stack incidents is included for reference to distinguish the risks for this site from recent incidents that have appeared in the news.

6.1 CLAY SETTLING AREA INCIDENTS

- 1940-1967 – 26 documented clay settling area dike failures (AEIS, 2012).
- 1971 – Cities Service Company – Catastrophic failure of clay settling area discharged 2.3 billion gallons of wastewater into the Peace River, resulting in a fish kill (AEIS, 2012). Florida Rule 17-9, F.A.C. was adopted as a result of this spill. This Rule specified criteria for the construction, operation, maintenance and inspection of engineered earthen dams (now covered under Rule 62-672).
- 1994 – IMC Payne Creek Mine – an internal clay settling area dam failure resulted in a release of 2-3 billion gallons of wastewater, mostly onto adjacent CF Industries property, although approximately 127 million gallons escaped into Hickey Creek (which drains to Paynes Creek and then the Peace River). (AEIS, 2012).
- 1994 – IMC Hopewell Mine – Clay settling area dam failure resulted in approximately 482 million gallons being released ultimately into the North Prong of the Alafia River. (AEIS, 2012). Rule 62-672 (formerly Rule 17-9) was amended as a result of this spill to require improvements in spillway design (construction methodology on the spillway was determined to be the cause of the 1994 failure). The amended Rule also required inspection of pre-rule dams and BMP requirements for non-clay impoundment berms. (AEIS, 2012).

*****NOTE: There are no known incidents involving CSA spills since 1994 (AEIS, 2012 and document research).**

6.2 PHOSPHOGYPSUM STACK AND OTHER INCIDENTS

- 1962 - American Cyanamid Spill – 3 billion gallons of acidic water was released from a gyp stack due to a break in a dike around a new gyp stack/cooling pond. The water entered Hookers Prairie but was stopped before entering the South Prong of the Alafia River and the contaminated water was treated with lime. The lime treatment and

prevention of water from entering the Alafia River resulted in a very low fish kill (a few bushels) (Foley and Pollock, 2000).

- 1988 – Large release of gyp stack water into the Alafia River from the closed Gardinier facility, releasing about 40,000 gallons of acidic waste from a storage tank into the Alafia River (AEIS, 2012).
- 1993 – Cargill facility gyp stack spill into Archie Creek, size of spill was undisclosed.
- 1994 – A sinkhole opened under the gyp stack at the IMC plant and released water into the groundwater at this location.
- 1997 – Mulberry Phosphates – 50 million gallons of acidic gyp stack water was discharged into a marsh and small ponds and some of the spill reached the North Prong of the Alafia River. Mulberry Phosphates was prevented from treating the river with lime and an estimated 50,000 to 3 million fish, blue crab and shrimp were killed as a result of the spill (Foley and Pollock, 2000) along a 30 mile stretch of the river (PBS&J, 2007).
- 2004 – Cargill - Hurricane Frances resulted in a release of 65 million gallons of gyp stack water to Archie Creek resulting in a fish kill (Pittman, 2017).
- 2010 – CF Industries required to pay millions in penalties and provide $163.5 million in financial assurances to close a gyp stack at its Plant City facility (USEPA, 2010).
- 2001 – Piney Point – Tropical Storm Gabrielle resulted in a release of over 1 billion gallons of acidic gyp stack water (FDEP, 2001). The spill resulted in an addition of 16.2 tons of nitrogen into Bishop's Harbor, raising nitrogen levels from 1 to 33 ug/L, increasing chlorophyll levels from 10 to 25 ug/L, and reports of murkiness in the water and reduced fish catches (http://baysoundings.com/legacy-archives/sum02/pineypt.html).
- 2011 – Piney Point gyp stack released 170 million gallons of acidic water from dredged material into Bishop Harbor (Slaman, 2013). Sources do not describe the impact the spill had on the harbor.
- 2015 – Settlement reached between Mosaic and USEPA for RCRA violations to establish a $1.8 billion trust fund for closure of gyp stacks at 8 sites in Florida and Louisiana – including the Bartow, New Wales and Riverview Plants. $8 million in civil penalties were also assessed (USEPA, 2015).
- 2016 – Mosaic Sinkhole, New Wales facility – A sinkhole opened under a gyp stack at Mosaic's New Wales facility, allowing at least 215 million gallons of waste to drain into the sinkhole (Earthjustice, 2016).

- 2016 – Mosaic Plant City – Release from Plant on County Line Road. Approximately 50,000 gallons were released when a connection between a pump and motor failed (The Ledger, 2016).

7.0 FDEP REPORTS FROM EXISTING MINES

Hundreds of documents regarding dozens of different types of reports, some of which are hundreds of pages long, are available through the FDEP web site (http://prodenv.dep.state.fl.us/DepNexus/public/searchPortal) and therefore a thorough review of all reports is not possible within the scope of this work effort. Also, reports were not found in the form of a summary of annual water quality data, water flows in streams, etc. This information was typically spread through numerous reports with one page for each sample location, of which there are dozens or hundreds.

8.0 SUMMARY OF RISKS

8.1 WATER QUANTITY

The risk to the quantity of water available to the City's water supply appears to be low but present. Many studies have attempted to measure actual and/or model predicted streamflow changes over many years. These studies have resulted in a wide range of results. However, overall it appears that there will be at least a small reduction in flows by 2050 (as much as 6% annual average and wet season, and 7% in the dry season according to the AEIS) in Big Slough during active mining.

8.2 WATER QUALITY

8.2.1 Active Mining

With respect to water quality associated with active mining, the risk of water quality degradation to the City's drinking water supply appears to be low. While mine outfall water exceeds water quality criteria for fluoride and is elevated for several parameters, the outfall water only flows after significant or prolonged storm events and downstream waters have remained well within state Class I and Class III water quality standards for the mines discussed here. Also, phosphate mining has been occurring in the Peace River Basin for many years and the Peace River itself does not currently have any TMDLs assigned to it, except for fecal coliforms above Bowlegs Creek.

8.2.2 Spill Events

Water quality impacts associated with gyp stack failures are not an issue in this watershed as no new fertilizer plants are currently planned. All of the spill events associated with phosphate mining in the past 23 years have been associated with fertilizer plants and gyp stacks.

Water quality impacts from CSAs are probably low in this watershed. While CSAs are planned upstream of the City, changes to engineering design requirements after previous spills have resulted in no clay settling area spills in the CFPD since 1994. However, dam failures are still possible, particularly following extreme weather events, and a CSA spill into Big Slough could be catastrophic to the City's drinking water supply.

9.0 RECOMMENDATIONS FOR FURTHER ACTIONS

Based on the overview of phosphate mining considerations described above, as well as a consideration of the City's interest in protecting its drinking water supply, the following items are recommended to the City for future courses of action:

- Collaboratively work with Mosaic staff and permitting agencies to remain fully informed of permitting and design processes related to the DeSoto West mine. Agencies include DeSoto and Manatee County, the USACE, FDEP and SWFWMD and notification requests should be submitted to each agency for the City to receive copies/notification of submitted materials.

- Collaboratively work with Mosaic staff to use mine pits to detain excess water during rainy periods to alleviate flooding in the City, and to release the detained water during drier periods.

- Work through regulatory agencies during permitting processes to review submittals and provide feedback to the agencies for items that might affect the City to ensure that existing regulations are fully met, that extra protections for Big Slough be required as appropriate, and to provide site specific information that the City might provide that might not otherwise be available to the agencies and/or Mosaic.

- Remain in regular contact with Manatee and DeSoto County mining program staff to monitor the progress of County approvals and opportunities to submit feedback at various stages of the approval process, which has not yet begun for Manatee County related to the DeSoto West mine.

- The City should request copies of annual reports submitted by Mosaic to SWFWMD related to baseline water level monitoring that will occur over several years prior to permit issuance, and copies of water quality data submitted to the FDEP prior to and during mining.

- The City should begin baseline monitoring fluoride levels at the Appomattox NPDES/hydrobiological water quality monitoring site (Site 1).

- The City should work with Mosaic to verify that the same water quality parameters being monitored before and during mining for the DeSoto East Mine, per FDEP ERP No,

331292.001, are included in baseline and during-mining monitoring for the DeSoto West Mine FDEP permit, particularly at the Big Slough at SR 72 surface water sampling location. The parameters monitored should include pH, dissolved oxygen, conductivity, turbidity, total alkalinity, hardness, total suspended solids, total phosphorus, ammonia, orthophosphate, total nitrogen, Total Kjeldahl Nitgrogen, nitrate/nitrite, fluoride, sulfate, total organic carbon, chloride, chlorophyll-a, akuminum, selenium, calcium, magnesium, arsenic, calcium, chromium, iron, lead, nickel, zinc, gross alpha and radium 226/228.

- The AEIS used conservative estimates of 50% and 100% for the amount of stormwater retained onsite to determine an estimated 6-7% flow reduction in Big Slough during mining. However, the AEIS (2012) indicated that Mosaic has said a 35% retention rate is more accurate. The City might request that surface water flows be modeled for the 35% retention scenario during the permitting process.
- Request that CSAs be located as far away from Big Slough as possible and/or that extra protections for Big Slough be added, as appropriate.
- Request that mining occur in the smallest possible footprint at any given time and that the mined areas be restored as quickly as possible after mining is complete, minimizing the area covered by open pits at any one time.
- Work with Mosaic staff to remain informed about baseline water quality monitoring data that might already be collected, or to be collected in the future, provide input on monitor site locations where possible and request collected data either from Mosaic or from FDEP or SWFWMD, as appropriate.

10.0 REFERENCES

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ARTICLE XI. - PHOSPHATE MINES

Sec. 54-321. - [Expenditures for investigation of impacts of phosphate mining.]

(a) *Findings of fact.* It is hereby found and determined as follows:

(1) There are pending or about to be filed requests to commit vast areas of Southwest Florida for the strip mining of phosphate.

(2) Phosphate mining, as presently conducted, is totally destructive of the immediate environment, requires vast amounts of increasingly scarce groundwater, fouls the air and has consistently resulted in tremendous environmental damage to surface waters through the release of phosphate slimes and other noxious pollutants.

(3) The conservation and protection of the natural resources and scenic beauty of Sarasota County is vitally important to the health, welfare and safety of the citizens and is further essential in the maintenance of the highly desirable tourist and retirement economic sectors that have arisen due to the County's unique climatic and cultural advantages.

(4) The air and water resources of the various counties of Southwest Florida are interdependent and indivisible and the adverse effects of phosphate mining will create a common and substantial burden upon all the counties within the region and will therefore affect the public health, welfare and safety of the citizens of Sarasota County.

(5) The mining of groundwater is already a serious problem in Southwest Florida and the potentiometric surface has declined below sea level in large portions of the region, thereby increasing the danger of saltwater intrusion.

(6) Phosphate mining in other areas of Florida has been shown to lower drastically groundwater levels and the potentiometric surface.

(7) The possible release of radioactive elements which have toxic effects even in minute amounts into the air and water of Southwest Florida through phosphate mining may have serious public health consequences now and for generations to come.

(8) No federal, State or regional agency has undertaken an independent, interdisciplinary study of the potential environmental, economic and public health impacts of phosphate mining on Southwest Florida.

(9) The vast majority of currently available information regarding phosphate mining has been prepared by phosphate corporations or consultants dependent upon the phosphate industry.

(10) Without an independent, interdisciplinary study of the potential environmental, economic and public health impacts of phosphate mining, it is impossible for any level of government to make enlightened decisions that will properly protect the public interest.

(b) *Authorization for the expenditure of public funds.*

(1) Sarasota County is hereby authorized to expend its funds for the conservation and protection of its natural resources and scenic beauty and for the abatement of air and water pollution resulting from or which may result from existing, pending and proposed phosphate mining including but not limited to expenditures for the following:

a. Participation in interdisciplinary studies and projects relating to the environmental impact of phosphate mining.

b. Obtaining and preparation of scientific and economic reports including the employment of all necessary experts and technicians for the purpose of preparing, presenting and testifying in regard to such reports.

c. The employment of scientists, technicians and attorneys.

d. Preparation for and presentations to local, regional, State and federal agencies and governing bodies and the bringing of any and all court litigation including the processing of appeals.

(2) All previous expenditures by Sarasota County relating to the protection of the environment in connection with existing, pending and proposed phosphate mining as set forth in subsection (b)(1) of this section are hereby ratified.

(c) *Declaration of Charter County purpose.* It is hereby determined and declared that the expenditure of funds for the purposes set forth in this article constitutes a public and Charter County purpose.

(Ord. No. 75-047, §§ 1—3, 1-6-1976)

Secs. 54-322—54-340. - Reserved.

ARTICLE X. - MINING

Sec. 54-281. - Findings.

The Board of County Commissioners of Sarasota County, Florida, hereby makes the following legislative findings:

(1) The natural environment of Sarasota County is a unique and valuable resource enjoyed by residents and visitors alike.

(2) The unique economy of the County is dependent upon maintaining and ensuring a high degree of environmental quality.

(3) Conservation of the natural environment has been adopted by the Board as a goal of the County in the Comprehensive Plan.

(4) Exploitation of mineral resources has historically been associated with extensive pollution of the environment and destruction of natural resources.

(5) Studies have shown that without appropriate environmental regulation the environmental damage associated with mineral exploitation will continue to be considerable.

(6) Recent technological innovations have occurred which, if required in mineral extraction, can serve to minimize environmental damage while permitting economically feasible operations.

(7) The regulations hereinafter set forth are reasonable and necessary to protect the natural environment and the public health, safety, and general welfare of the citizens of Sarasota County.

(Ord. No. 82-111, § 1, 3-1-1983)

Sec. 54-282. - Short title.

This article shall be known and may be cited as the "Sarasota County Mining Ordinance."

(Ord. No. 82-111, § 2, 3-1-1983)

Sec. 54-283. - Purpose and intent.

The purpose and intent of this article is to protect the public health, safety and general welfare of the citizens of Sarasota County, to ensure that the development of mineral resources shall be compatible with the overall economic objectives of the County, to protect and conserve natural resources and the environment for present and future generations, to minimize the adverse impacts of mining, to ensure that Mining Activities will not preclude future uses of mined-out lands, and to implement the Sarasota County Comprehensive Plan.

(Ord. No. 82-111, § 3, 3-1-1983)

Sec. 54-284. - Definitions.

For the purpose of this article, the following terms shall have the meanings set forth in this section unless the context clearly indicates otherwise. Words used in the singular number include the plural and words used in the plural number include the singular. Words in the masculine gender include the feminine, and words used in the present tense include the future tense.